



Supporting information Figure 4: Cardiorespiratory responses as a function of running speed, separately displayed for the 4 different gravitational conditions tested. The solid lines denote the regression lines of each condition whilst the shaded colors represent the standard errors with 95% of confidence interval.

Figure 3A: Maximum reached oxygen uptake in [ml / (kg*min)] in relation to running speed in [kilometre/h]

Figure 3B: Maximum reached heartrate in [beats/min] in relation to running speed in [kilometre/h]

Figure 3C: Oxygenpulse in [ml /heartbeat] as a function of running speed in [kilometre/h]

Visits	Protocol	Positon	G-Loading	Target
V0	Bruce	Upright Supine	1.00 0.30-1.00	VO ₂ max familiarization
V1	Incremental	Upright	1.00	Maximal Speed
V2-V4	Incremental	Supine	0.30, 0.60, 1.00 in randomized order	Maximal Speed

Supporting information Table 4: Overview of the five visits that were performed. “VO_{2max}”: Maximum Oxygen uptake

Time in minutes	0-5	5-10	10-15	15-20	20-24	24-28	28-32	32-36	36-40	40-44	44-48	48-52	52
Speed in km/h	0	25% VO _{2max}	50% VO _{2max}	0	4	6.5	9	11.5	14	16.5	19	4 cool down	stop

Supporting information Table 5: Speed profile during visits V1-V4